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EXAMINER

LINDSEY, MATTHEW S

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/578,646	Applicant(s) SOOMRO, AMJAD	
	Examiner MATTHEW S. LINDSEY	Art Unit 2451	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20 October 2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-21 are pending in this application. Claims 1-3, 5-14 and 17-21 have been amended as filed on 20 October 2008.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 20 October 2008 has been entered.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. **Claims 18-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

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5. With respect to Claims 18-21, the claims are directed to a processor executing code, which can reasonably be implemented as software. The claims lack the physical objects or articles to constitute a machine or manufacture under the meaning of 35 USC 101. They are not a series of steps or acts to be a process, nor are they a combination of chemical compounds to be a composition of matter. They represent software and as such fail to fall within a statutory category of invention.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3-8 and 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benveniste (US 2004/0264397 A1) in view of Meier (US 2004/0103282).

8. With respect to Claim 1, Benveniste disclosed: "A method to determine in a network component when to provide service to client devices operating in power-saving mode in a wireless network (Abstract, lines 1-3), said method comprising:

receiving requests for service from respective ones of said client devices (Figure 7, object 760 and [0074], lines 1-3), the received requests for service including a

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scheduled requested servicing signal received from a first one of the client devices ([0026], lines 1-9) and an unscheduled request received from a second one of the client devices ([0008], lines 1-6, where access points receive unscheduled frames from client devices, resulting in a collision);

said network component being informed of said scheduled request ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it)", and "said network component being informed of said unscheduled request ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it)", and;

"determining an ability to accommodate said received requests for service ([0050], lines 1-7); and

providing respective indications of the ability to accommodate said received requests for service to the first and second ones of said client device ([0052], lines 1-3, and [0054], lines 1-3)".

Benveniste did not explicitly state: "said network component being informed of said scheduled request by a field of a traffic specification format being set to a first value, said network component being informed of said unscheduled request by said field of said traffic specification format being set to a second value different from said first value".

However, Meier disclosed: "said network component being informed of said scheduled request by a field of a traffic specification format being set to a first value,

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said network component being informed of said unscheduled request by said field of said traffic specification format being set to a second value different from said first value (table below [0470], specifically the SCM flag for Bit 14, which is an unscheduled flag to indicate if the message is scheduled or unscheduled)”).

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Meier since Benveniste disclosed a method for delivering frames to wireless devices and Meier disclosed a system for handling communications with mobile nodes in a wireless network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the teachings of Meier to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled requests to provide increased QoS for scheduled requests since they were arranged in advance.

9. With respect to Claim 8, Benveniste disclosed: “A device to determine when to provide service to client devices operating in power-saving mode in a wireless network (Abstract, lines 1-3), said device comprising:

a memory (Figure 3, object 303);

a processor in communication with said memory (Figure 3, object 302), said processor operable to execute code to:

receive requests for service from respective ones of said client devices (Figure 7, object 760), the received requests including a scheduled request received from a first one of the client devices ([0026], lines 1-9) and an unscheduled request received from a second one of the client devices ([0008], lines 1-6, where access points receive unscheduled frames from client devices, resulting in a collision);

said device being informed of said scheduled request ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it)", and "said device being informed of said unscheduled request ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it)";

"determine an ability to accommodate received requests for service ([0050], lines 1-7); and

provide respective indications of the ability to accommodate said received requests for service to the first and second ones of said client device ([0052], lines 1-3, and [0054], lines 1-3)".

Benveniste did not explicitly state: "said device being informed of said scheduled request by a field of a traffic specification format being set to a first value, said device being informed of said unscheduled request by said field of said traffic specification format being set to a second value different from said first value".

However, Meier disclosed: “said network component being informed of said scheduled request by a field of a traffic specification format being set to a first value, said network component being informed of said unscheduled request by said field of said traffic specification format being set to a second value different from said first value (table below [0470], specifically the SCM flag for Bit 14, which is an unscheduled flag to indicate if the message is scheduled or unscheduled)”.

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Meier since Benveniste disclosed a method for delivering frames to wireless devices and Meier disclosed a system for handling communications with mobile nodes in a wireless network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the teachings of Meier to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled requests to provide increased QoS for scheduled requests since they were arranged in advance.

10. With respect to Claim 18, Benveniste disclosed: “A processor (Figure 3, object 302) within a network component (Figure 3, objects 301, 304) to determine an ability of

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said network component to honor requests for service received from respective client devices (Abstract, lines 1-3), said processor being adapted to execute code to:

review an operating state of said network component ([0036], lines 3-7, where buffering frames for a power-saving station in doze state indicates that the access point reviews the operating state of the network component);

review said requests for service ([0050], lines 1-7), the requests for service including a scheduled request received from a first one of the client devices ([0026], lines 1-9) and an unscheduled request received from a second one of the client devices ([0008], lines 1-6, where access points receive unscheduled frames from client devices, resulting in a collision);

said network component being informed of said scheduled request ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it)", and "said network component being informed of said unscheduled request ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it)", and;

"accommodate said received requests for service ([0054], lines 1-3), with modification when necessary ([0063], lines 1-4 and [0065], lines 1-3), when said operating state indicates that said requests for service are able to be accommodated ([0053], lines 1-4); and

provide respective indications of said accommodation to said first and second one of the client devices ([0065], lines 1-3)".

Benveniste did not explicitly state: “said network component being informed of said scheduled request by a field of a traffic specification format being set to a first value, said network component being informed of said unscheduled request by said field of said traffic specification format being set to a second value different from said first value”.

However, Meier disclosed: “said network component being informed of said scheduled request by a field of a traffic specification format being set to a first value, said network component being informed of said unscheduled request by said field of said traffic specification format being set to a second value different from said first value (table below [0470], specifically the SCM flag for Bit 14, which is an unscheduled flag to indicate if the message is scheduled or unscheduled)”.

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Meier since Benveniste disclosed a method for delivering frames to wireless devices and Meier disclosed a system for handling communications with mobile nodes in a wireless network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the teachings of Meier to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled

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requests to provide increased QoS for scheduled requests since they were arranged in advance.

11. With respect to Claims 3 and 10, Benveniste disclosed: “wherein said scheduled request includes a proposed service schedule ([0049], lines 1-3)”.

12. With respect to Claims 4 and 11, Benveniste disclosed: “further comprising: modifying said proposed service schedule ([0063], lines 1-4)”.

13. With respect to Claims 5 and 12, Benveniste disclosed: “further comprising: providing said modified proposed service schedule to said first one of the client devices ([0065], lines 1-3)”.

14. With respect to Claims 6 and 13, Benveniste disclosed: “wherein said indications are selected from a group consisting of: denied ([0052], lines 1-3), accommodated with change ([0065], lines 1-3), and accommodated ([0054], lines 1-3)”.

15. With respect to Claims 7 and 14, Benveniste disclosed: “wherein said determining the ability to accommodate is based on at least one factor selected from a group consisting of: a requested servicing method ([0050], lines 1-7), a proposed schedule ([0050], lines 1-7), network operating state ([0050], lines 1-7), network policy ([0050], lines 1-7), and network condition ([0050], lines 1-7)”.

16. With respect to Claim 15, Benveniste disclosed: “The device as recited in claim 8, further comprising: an I/O device operable as an interface between said network and said processor (Figure 3, objects 301, 304)”.

17. With respect to Claim 16, Benveniste disclosed: “The device as recited in claim 8, wherein said code is stored in said memory ([0040], lines 1-6)”.

18. With respect to Claim 17, Benveniste disclosed: “The device as recited in claim 8, further comprising: a receiving device to receive said requests (Figure 3, object 301); and a transmitting device to provide said respective indications to the first and second ones of said client devices (Figure 3, object 304).

19. With respect to Claim 19, Benveniste disclosed: “The processor as recited in claim 18, wherein said processor is further adapted to execute code to: provide respective indications of denying said requests for service to the first and second ones of the client devices when said operating state indicates that said requests for service are unable to be accommodated ([0052], lines 1-5)”.

20. With respect to Claim 20, Benveniste disclosed: “The processor as recited in claim 18, wherein said operating state is selected from a group consisting of: processing load ([0052], lines 3-5), demand ([0050], lines 1-7), projected processing load ([0050],

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lines 1-7), projected demand ([0050], lines 1-7), network component operating state ([0036], lines 3-5, data is not transferred when the device is in power-saving mode), network component policy ([0050], lines 1-7), and network component condition ([0036], lines 3-5, data is not transferred when the device is in power-saving mode)".

21. Claims 2, 9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benveniste and Meier in view of Smith et al. (US 2003/0126244 A1).

22. With respect to Claims 2, 9 and 21, the combination of Benveniste and Meier did not explicitly state: "in response to being unable to accommodate the unscheduled request, providing a proposed schedule to the second one of the client devices".

However, Smith disclosed: "in response to being unable to accommodate the unscheduled request ([0028], lines 1-4 and [0029], lines 1-2, where a request is denied), providing a proposed schedule to the second one of the client devices ([0029], lines 1-2, and [0034], lines 1-6, where a denied request is scheduled for a future time)".

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Meier with Smith since Benveniste and Meier disclosed a method for communicating with wireless devices and Smith disclosed a method for scheduling communication with wireless devices.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the scheduling system of Benveniste and Meier with the teachings of Smith to include support for denying an unscheduled request and providing a schedule for the denied request. Motivation to combine these comes from Smith, where: "In particular, there is a need in the art for mechanisms to more efficiently use network resources within a pull technology environment by balancing the network and server workload during periods when the demand on resource bandwidth exceeds the resource's capability to provide that bandwidth in real time" ([0005], lines 3-8).

Therefore by combining the references one can schedule requests that would overload a network for a future time, and thereby utilizing network resources more efficiently.

Response to Arguments

23. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW S. LINDSEY whose telephone number is (571)270-3811. The examiner can normally be reached on Mon-Thurs 7-5, Fridays 7-12.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MSL
12/30/2008

/Philip C Lee/
Primary Examiner, Art Unit 2452